6.0 FUNDING AND BUILDING THE SYSTEM

6.1 Two Funding Approaches

This plan presents two approaches to funding the system. The first is a full-funding scenario that assumes a decision to proceed with the entire project is made in 2000. The second approach is a phased-funding approach that focuses on securing those resources required to complete discrete phases of the project as expeditiously as possible.

Both scenarios are consistent with the intent of the Authority's legislative mandate to determine how to construct and operate a high-speed train network. As described in Chapter 2, the engineering, environmental clearance, right-of-way purchase, and construction phases of the project are estimated to take 16 years. This time period and the length of each discrete phase guided the development of both scenarios, which would move the project to its completion in 2016 as expeditiously as possible. Both scenarios would have the same outcome.

Given the 16-year time frame and the opportunities to piece together a financing plan with better knowledge that more appropriately addresses the discrete phases of the project, the phased-funding approach is the most prudent and business-like approach and will ultimately be of better value to the state's taxpayers. Further, this approach is consistent with the way in which transportation projects are funded in California.

The full-funding approach remains a reasonable course of action and represents a "worst-case" funding scenario that is constrained to sources of funds that are defined. The phased-funding approach should overcome these limitations to create a more solid financial foundation for the project.

6.2 Financial Plan Policies

In March 1999, the Authority adopted policies that served as assumptions to guide the development of both funding scenarios. On the one hand, the assumptions portray a "worst-case" full-funding scenario by being limited to sources of funding that are defined and not speculative. On the other hand, these constraints also provide direction on how to approach the phases of the project so that appropriate sources of funding can be targeted most efficiently.

1. *The financial plan shall be prepared with a statewide temporary sales tax as the state revenue source, to the extent that state public funds are needed for the capital costs of building the high-speed train network, and only for so long as they are needed.*

The Authority reviewed three types of statewide revenue-sales tax, gas tax, and general obligation bonds. The Authority rejected general obligation bonds because the state does not have sufficient bonding authority to finance the construction of the project.

The gas tax is not a viable option for three reasons. The first is that the purchasing power of the gas tax has been declining over time. The second reason is that federal environmental mandates require that between five and 10 percent of the state's automobile fleet must be non-polluting vehicles by the middle of the next decade. Presently, non-polluting vehicles are exempt from user fees. Combining the two reasons yields the third: the Authority has difficulty assuming an appropriate level of gas tax to raise the funds necessary over the next 16 years.

As a result, the Authority determined that a statewide sales tax yields the most predictable stream of revenue to fund the capital costs of the project. The emergence of e-commerce is likely to have an impact on sales tax generation over the next two decades that could make estimating the sales tax to be raised as difficult as the gas tax. However, the Authority could not address the issue adequately due to the lack of consensus among economists on what that impact might be.

2. *The financial plan shall presume that the state will fund the base system fully and that no local funding participation shall be assumed in the base system. The Authority shall consider entering into*

intergovernmental agreements with local agencies, should local agencies desire or request location, design, and other station amenities over and above the design standards of the base system. The costs of location, design and other amenities over and above the base system shall be the responsibility of requesting local agencies.

The financial plan does not assume any contribution from local agencies because such contributions would likely come at the expense of other funding. However, cities or regions could leverage an investment in a station location with that of the Authority.

3. *To the extent possible, all parking at high-speed train stations shall be constructed, operated and funded by private operators under agreements with the Authority.*

The projections based upon airport experience show that parking revenues will cover the cost of building parking facilities and that the private sector, rather than the Authority, should be responsible for constructing, operating and financing these facilities.

SOURCES of FUNDS:	(MILLIONS)	
1/4-cent Statewide Sales Tax Revenue	*$18,564*	*70%*
Sales Tax Bond Net Proceeds	*$3,739*	*14%*
Commercial Paper Net Proceeds	*$999*	*4%*
Other Funding Sources	*$723*	*3%*
Interest Earned on Cash Balances	*$2,577*	*9%*
TOTAL	*$26,602*	*100%*
USES of FUNDS:		
Capital Costs	*$24,974*	*94%*
Sales Tax Bond Principal and Interest Payments	*$1,627*	*6%*
Ending Cash Balance	*$1*	*0%*
TOTAL	*$26,602*	*100%*

Table 6.1
Summary of Full-Funding Financing Scenario
($1999, through the end of FY 2016)

4. *The Authority shall diligently seek partnership funding from the federal government to construct the high-speed train system. However, federal grant funding shall not be included in the Authority's financial plan until a funding commitment is expressed by either the Congress or the administration. To the extent feasible, advisable, and cost effective, the Authority should seek federal loans or credit enhancements.*

Because the business plan will be completed after the Transportation Equity Act for the 21st century (TEA-21) and before the next round of federal transportation authorization legislation, no federal grant monies are included. The Authority is considering how to incorporate the federal loan and credit enhancement provisions of the Transportation Infrastructure Finance and Innovation Act (TIFIA). Securing federal funding would significantly alter the full-funding scenario.

5. *The financial plan shall not budget for special freight equipment as part of the initial operating plan. The Authority may consider utilizing the basic passenger train sets for appropriate freight service as market conditions justify and as consistent with the Authority's primary mission of passenger service.*

Freight revenues could be a source of funding for constructing and operating the high-speed train system, if sufficient freight operations were to occur. As a result, only those freight revenues expected to result from moving goods as part of regularly scheduled passenger service are included.

The phased-funding approach is the most prudent and business-like approach and will ultimately be of better value to the state's taxpayers.

6.3 Full-Funding Scenario

The full-funding scenario assumes that a quarter-cent sales tax increase statewide is authorized in November 2000. Because the initial phases of the project require less capital funding than the construction phases, which are estimated to occur six years into the project, the Authority would have the ability to pursue a pay-as-you-go strategy for funding the project development, environmental clearance, and right-of-way phases. It is not until late in the construction phase that a relatively small amount of debt would need to be issued *(see Table 6.1)*.

This scenario assumes that the entire system is constructed simultaneously and is opened on June 30, 2016. The financial plan does not assume any segment would be opened early. Even if a profitable segment could be opened early, based on the projections of the total amount of debt that could be supported by the project's revenues, an early opening would not reduce the need for public investment. In addition, the 16-year project development and construction schedule makes it difficult to leverage operating revenues to pay for initial construction costs.

Robust operating surpluses are forecast, allowing the system to self-finance ongoing service expansions and maintenance *(see Table 6.2)*. The sensitivity analyses discussed in Chapter 3 suggest that there is room for some upside potential in the ridership and revenues currently estimated. These analyses are not of the same caliber as the base ridership and revenue forecasts, but they do underscore the potential for the high-speed train service to produce revenues exceeding $1.7 billion, if certain conditions apply. Should the base forecast be exceeded, the resulting financial flexibility could dramatically alter the public investment assumptions, including the amount and duration of any taxes needed.

Other Revenues

The scenario makes extensive use of other revenue sources. These include the following:

Interest Earnings: Interest earnings on the revenue accumulating during the project development and environmental phase of the project contribute over $2.5 billion. In addition, the plan assumes earnings on bond proceeds awaiting expenditure and debt service reserve funding earnings would be applied to offset capital costs and debt service.

- **Right-of-Way Dedications:** The scenario assumes 15 percent of the right-of-way required is currently in public ownership and will be provided to the system at no cost. This cost avoidance amounts to between $373.5 and $499 million. The actual amount of right-of-way should be assessed as part of the next phase of the project.
- **Leveraged Lease Proceeds:** The scenario assumes the Authority will receive $35.3 million in leveraged lease proceeds representing a three percent (net present value) return on the value of the rolling stock assets. The actual amount received will depend on the type of vehicles and the tax environment at the time of system implementation.
- **Parking Revenue:** The scenario assumes that private parking vendor financing will cover the approximately $190 million cost attributable to the parking facilities, including landscaping and additional site preparation.

	Total Operating Revenues*	Operating Expenses	Net Operating Income
2017	722	551	171
2018	821	551	270
2019	880	551	329
2020	894	551	343
2021	909	551	358
2022	925	655	270
2023	940	578	362
2024	956	578	378
2025	972	579	393
2026	988	579	409
TOTAL	9,007	5,724	3,283

* Includes passenger, freight and concession revenue.
(Note: The sensitivity analyses described in 3.3 outline conditions that might generate greater operating revenues. For example, under significantly greater air and auto travel delays and tripled air fares, high-speed train service operating revenues could exceed $1.7 billion in 2020.)

Table 6.2
Summary of Operating Income (millions $1999)

- **Station Concession Revenue:** The projected triple-net lease revenue the high-speed train stations will generate is approximately $1.5 million annually ($1999).

6.4 Phased-Funding Scenario

The Authority's recommended approach is to pursue funding on an as-needed basis to enable the project to proceed expeditiously. A phased-funding scenario does not assume any delay in the project schedule or the initiation of revenue service. Rather, the strategy focuses on securing the funds necessary to complete the discrete phases of the project.

The next phase is development of a program EIR/Tier I EIS with attendant engineering and environmental work *(see Table 6.3).* This phase would take two years and approximately $25 million to complete.

During the program EIR phase, the Authority or its successor would pursue additional sources of funding in order to finance the remainder of the project, recast the financing plan to reduce the investment of the state's taxpayers, and develop relationships with funding partners to align construction risks and operations rewards. For example:

- The financial plan policies recommend seeking federal funding for the project. Beginning in 2000, California could develop a funding package that could be part of the next federal transportation reauthorization package. Federal funding could be applied to the remaining phases of the project.
- In exercising its franchise and design-build-operate-maintain contracting powers, the Authority could secure private sector resources. Franchise fees, private construction financing, and vendor financing could all be part of a private-sector-financing package that, in conjunction with the federal funding package, could significantly offset the investment ultimately required by the state's taxpayers. Vendor financing need not be limited to equipment manufacturers but could also include power utilities and other major suppliers to the network.

The following phase, which would require a decision to proceed to this phase, would entail preliminary engineering and full environmental clearance. The Authority would complete project EIRs and EISs and prepare the project for construction. This second phase is estimated to cost $350 million.

Purchase of right-of-way, which is estimated to be approximately $2.5 billion, would follow. This phase, along with the construction phase, which is estimated to be approximately $22 billion at this juncture, would require a detailed financing plan that would include the sources described below:

- An investment of state funds;
- A possible investment of federal funds — most likely through participation in the next round of federal transportation authorization; and
- An investment of private funds — most likely through the award of franchises, design-build-operate-maintain contracts and vendor financing.

Robust operating surpluses are forecast, allowing the system to self-finance ongoing service expansions and maintenance.

Table 6.3
Phasing of Capital Expenditures (millions $1999)

ITEM	YEAR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	TOTAL	% OF TOTAL
PE/Environmental																		
Program Environmental	10	10															20	0%
Prelim Engr/EIS/EIR			75	100	100	75											350	1%
Right-of-Way							271	542	363	363	816						2,355	9%
Civil Engineering																		
Stations								83	165	165			214	214	214	214	1,269	5%
Line Construction							531	797	797	1,390	1,718	1,718	1,718	1,718	859		11,246	45%
Vehicles							98	98	98	98			196	196	196	196	1,176	5%
Systems																		
Trackwork							22	66	66	66	127	254	254	254	254	127	1,490	6%
Electrification							20	61	61	61	117	233	233	233	233	117	1,369	5%
Signaling and Comm							26	79	79	79	152	304	304	304	304	152	1,782	7%
Support Facilities							30	53	53	15	0	43	43	43	24	0	304	1%
Program Implementation *(Admin, PM & CM)*							181	289	325	361	505	433	505	505	361	144	3,609	14%
TOTAL	10	10	75	100	100	75	1,179	2,068	2,007	2,598	3,435	2,985	3,467	3,467	2,445	950	24,970	98%
% of TOTAL COST	0.04%	0.04%	0.30%	0.40%	0.40%	0.30%	5%	8%	8%	10%	14%	12%	14%	14%	10%	4%		100.48%

6.5 Procurement Considerations

Both the full-funding and phased-funding scenarios assume the use of design-build-operate-maintain contracting. The 16-year schedule will require a procurement plan that maximizes private sector funding participation and risk taking. For example, limitations on public funding may require, among other things, such approaches as fixed-price construction contracts with completion date and long-term operating guarantees.

Three key procurement issues need clarification during the program EIR phase of the project:

- The kind and number of contracts to be used to design, build and operate the high-speed train system.
- How much design work should be performed prior to procuring major private sector partners and at what stage of the environmental review process.
- The form of contract and procurement method to use for each contract. The Authority could manage directly the procurement of civil construction elements, vehicle and systems supply, and maintenance and operations with separate contractors or consortia. Or, the Authority could combine the supply of vehicles, systems, and long-term operations and maintenance into a single “core contract.”